

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Shaharyar Khan

Serial No.: 10/561,829 Art Unit: 1636

Filed: December 21, 2005 Examiner: Kimberly A. Makar

For: *MODIFIED VECTORS FOR ORGANELLE TRANSFECTION*

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicant submits an Information Disclosure Statement, including two (2) pages of Form PTO-1449 and copies of the thirteen (13) documents cited therein.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-3129.

Publications

BAYONA-BAFALUY, "Rapid directional shift of mitochondrial DNA heteroplasmy in animal tissues by a mitochondrially targeted restriction endonuclease," *Proc. Natl. Acad. Sci. U S A.* 102(40):14392-7(2005).

D'SOUZA "Gene therapy of the other genome: the challenges of treating mitochondrial DNA defects" *Pharm Res.* 24(2):228-38(2007).

DEL GAIZO, "A novel TAT-mitochondrial signal sequence fusion protein is processed, stays in mitochondria, and crosses the placenta," *Mol. Ther.* 7(6):720-30(2003).

FLIERL, "Targeted delivery of DNA to the mitochondrial compartment via import sequence-conjugated peptide nucleic acid," *Mol. Ther.* 7(4):550-7(2003).

KHAN, "Development of mitochondrial gene replacement therapy," *J. Bioenergetics and Biomembranes* 36L387-393(2004).

MALIGA, "Plant Biotechnology 2007: all three genomes make contributions to progress" *Current Opinion in Biotech.* 18:97-99(2007).

MURPHY, "Selective Targeting of Bioactive Compounds to Mitochondria," *Trends in Biotech.* 15(8):326-30(1997).

SEIBEL, "Transfection of mitochondria: strategy towards a gene therapy of mitochondrial DNA diseases," *Nucleic Acids Res.* 23(1):10-17(1995).

SHORE, "Import and insertion of proteins into the mitochondrial outer membrane" *Eur. J. Biochem.* 227:9-18(1995).

SLOOTS, "Recombinant derivatives of the human high-mobility group protein HMGB2 mediate efficient nonviral gene delivery" *FEBS* 272:4221-4236(2005).

SRIVASTAVA, "Manipulating mitochondrial DNA heteroplasmy by a mitochondrially targeted restriction endonuclease," *Hum. Mol. Genet.* 10(26):3093-9(2001).

TANAKA, "Gene therapy for mitochondrial disease by delivering restriction endonuclease SmaI into mitochondria," *J. Biomed. Sci.* 9(6 Pt 1):534-41(2002).

VESTWEBER, "DNA-protein conjugates can enter mitochondria via the protein import pathway," *Nature* 338(6211):170-2(1989).

U.S.S.N.: 10/561,829

Filed: December 21, 2005

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicant invites the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicant is of the opinion that his claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,

/ Charles Vorndran /

Charles Vorndran, Ph.D.
Reg. No. 45,315

Dated: February 12, 2008

PABST PATENT GROUP LLP
400 Colony Square, Suite 1200
1201 Peachtree Street
Atlanta, Georgia 30361
(404) 879-2151 (Telephone)
(404) 879-2160 (Fax)